

In the claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1 1. (Currently Amended) A blade support sub-assembly adapted to be used with a scraper
2 blade for scraping and cleaning a conveyor belt and with a mounting sub-assembly,
3 comprising:

4 a pair of notched receiving members, each notched receiving member having a
5 notch formed from a front vertical stabilizer and a rear vertical stabilizer, said notch for
6 receiving a scraper blade, and said pair of notched receiving members adapted for use
7 with a mounting sub-assembly;

8 a face plate extending between said pair of notched receiving members and about
9 parallel to the scraper blade such that at least a portion of the scraper blade rests flush
10 against said face plate when the scraper blade is situated in said pair of notched receiving
11 members; and

12 a means for vertically adjusting ~~and rigidly fixing~~ a height of the scraper blade in
13 relation to a fixed position of said pair of notched receiving members and said face plate
14 such that the scraper blade is rigidly fixed at a selected height and is in contact with a
15 surface of the conveyor belt to be scraped.

1 2. (Currently Amended) The blade support sub-assembly according to claim 1, wherein said
2 means for vertically adjusting ~~and rigidly fixing~~ a height of the scraper blade in relation to
3 a fixed position of said pair of notched receiving members comprises a horizontal blade
4 stabilizer approximately perpendicular to and extending beneath said face plate, and one
5 or more adjustable lock bolts extending upward through said horizontal blade stabilizer
6 and in communication with a bottom surface of the scraper blade, wherein rotating one
7 said adjustable lock bolt in a first direction raises said adjustable lock bolt and the scraper

1 blade, and rotating one said adjustable lock bolt in a second direction lowers said
2 adjustable lock bolt and the scraper blade.

1 3. (Original) The blade support sub-assembly according to claim 1, further comprising a
2 means for removably securing the scraper blade within said notches of said pair of
3 notched receiving members.

1 4. (Previously Presented) The blade support sub-assembly according to claim 3, wherein
2 said means for removably securing the scraper blade comprises one or more adjustable
3 screws and said face plate having one or more holes that align with one or more holes in a
4 scraper blade, wherein each of said adjustable screws is adapted to pass through one of
5 the holes in the scraper blade and through one of said holes in said face plate, thereby
6 securing the scraper blade to said face plate at a fixed position.

1 5. (Original) The blade support sub-assembly according to claim 1, further comprising a
2 shield attached to the scraper blade, wherein said shield extends from the scraper blade
3 and over the blade support sub-assembly.

1 6. (Original) The blade support sub-assembly according to claim 1, wherein said rear
2 vertical stabilizer is taller in height than said front vertical stabilizer.

1 7. (Original) The blade support sub-assembly according to claim 1, further comprising a
2 scraper blade having a blade insert fixed within a blade housing.

1 8. (Original) The blade support sub-assembly according to claim 1, further comprising a
2 means for spraying a liquid on the conveyor belt.

1 9. (Original) The blade support sub-assembly according to claim 8, wherein said means for
2 spraying a liquid comprises a pipeline, for transporting a liquid, having one or more
3 nozzles, a means for restricting a flow of the liquid through said pipeline, and a means for
4 securing said pipeline and said one or more nozzles in proximity to the blade support sub-
5 assembly.

1 10. (Previously Presented) A blade support sub-assembly adapted to be used with a scraper
2 blade for scraping and cleaning a conveyor belt and with a mounting sub-assembly,
3 comprising:

4 a pair of notched receiving members, each notched receiving member having a
5 notch formed from a front vertical stabilizer and a rear vertical stabilizer, said notch for
6 receiving a scraper blade, and said pair of notched receiving members adapted for use
7 with a mounting sub-assembly;

8 a face plate extending between said pair of notched receiving members and about
9 parallel to the scraper blade such that at least a portion of the scraper blade rests flush
10 against said face plate when the scraper blade is situated in said pair of notched receiving
11 members;

12 a means for vertically adjusting a height of the scraper blade in relation to a fixed
13 position of said pair of notched receiving members such that the scraper blade is in
14 contact with a surface of the conveyor belt to be scraped;

15 a means for spraying a liquid on the conveyor belt, wherein said means for
16 spraying a liquid comprises a pipeline, for transporting a liquid, having one or more
17 nozzles, a means for restricting a flow of the liquid through said pipeline, and a means for
18 securing said pipeline and said one or more nozzles in proximity to the blade support sub-
19 assembly; and

20 a shield, having one or more holes, attached to the scraper blade, wherein said
21 shield extends from the scraper blade and over the blade support sub-assembly, wherein

22 each of said one or more nozzles of said pipeline aligns with and extends through one of
23 said one or more holes in said shield.

1 11. (Previously Presented) The blade support sub-assembly according to claim 10, wherein
2 said shield is attached to a front of the scraper blade such that the liquid is sprayed toward
3 the conveyor belt.

1 12. (Previously Presented) The blade support sub-assembly according to claim 10, wherein
2 said shield is attached to a rear of the scraper blade such that the liquid is sprayed toward
3 the conveyor belt.

1 13. (Previously Presented) A blade support sub-assembly adapted to be used with a scraper
2 blade for scraping and cleaning a conveyor belt and with a mounting sub-assembly,
3 comprising:

4 a pair of notched receiving members, each notched receiving member having a
5 notch formed from a front vertical stabilizer and a rear vertical stabilizer, said notch for
6 receiving a scraper blade, and said pair of notched receiving members adapted for use
7 with a mounting sub-assembly;

8 a face plate extending between said pair of notched receiving members and about
9 parallel to the scraper blade such that at least a portion of the scraper blade rests flush
10 against said face plate when the scraper blade is situated in said pair of notched receiving
11 members;

12 a means for vertically adjusting a height of the scraper blade in relation to a fixed
13 position of said pair of notched receiving members such that the scraper blade is in
14 contact with a surface of the conveyor belt to be scraped; and

15 a means for spraying a liquid on the conveyor belt, wherein the liquid is selected
16 from the group consisting of water, a cleaning agent, a solvent, anti-freeze, and a dust

17 inhibitor.

Claims 14-21 (Cancelled)

1 22. (Previously Presented) The blade support sub-assembly according to claim 26, wherein
2 said means for spraying a liquid comprises a pipeline, for transporting a liquid, having
3 one or more nozzles, a means for restricting a flow of the liquid through said pipeline,
4 and a means for securing said pipeline and said one or more nozzles in proximity to the
5 blade support sub-assembly.

1 23. (Previously Presented) A blade support sub-assembly adapted to be used with a scraper
2 blade for scraping and cleaning a conveyor belt and with a mounting sub-assembly,
3 comprising:

4 a pair of notched receiving members, each notched receiving member having a
5 notch formed from a front vertical stabilizer and a rear vertical stabilizer, said notch for
6 receiving a scraper blade, and said pair of notched receiving members adapted for use
7 with a mounting sub-assembly;

8 a face plate extending between said pair of notched receiving members and about
9 parallel to the scraper blade such that at least a portion of the scraper blade rests flush
10 against said face plate when the scraper blade is situated in said pair of notched receiving
11 members;

12 a means for spraying a liquid on the conveyor belt, wherein said means for
13 spraying a liquid comprises a pipeline, for transporting a liquid, having one or more
14 nozzles, a means for restricting a flow of the liquid through said pipeline, and a means for
15 securing said pipeline and said one or more nozzles in proximity to the blade support sub-
16 assembly; and

17 a shield, having one or more holes, attached to the scraper blade, wherein said

18 shield extends from the scraper blade and over the blade support sub-assembly, wherein
19 each of said one or more nozzles of said pipeline aligns with and extends through one of
20 said one or more holes in said shield.

1 24. (Previously Presented) The blade support sub-assembly according to claim 23, wherein
2 said shield is attached to a front of the scraper blade such that the liquid is sprayed toward
3 the conveyor belt.

1 25. (Previously Presented) The blade support sub-assembly according to claim 23, wherein
2 said shield is attached to a rear of the scraper blade such that the liquid is sprayed toward
3 the conveyor belt.

1 26. (Previously Presented) A blade support sub-assembly adapted to be used with a scraper
2 blade for scraping and cleaning a conveyor belt and with a mounting sub-assembly,
3 comprising:

4 a pair of notched receiving members, each notched receiving member having a
5 notch formed from a front vertical stabilizer and a rear vertical stabilizer, said notch for
6 receiving a scraper blade, and said pair of notched receiving members adapted for use
7 with a mounting sub-assembly;

8 a face plate extending between said pair of notched receiving members and about
9 parallel to the scraper blade such that at least a portion of the scraper blade rests flush
10 against said face plate when the scraper blade is situated in said pair of notched receiving
11 members; and

12 a means for spraying a liquid on the conveyor belt, wherein the liquid is selected
13 from the group consisting of water, a cleaning agent, a solvent, anti-freeze, and a dust
14 inhibitor.

Claims 27-30 (Cancelled)

- 1 31. (Previously Presented) The blade support sub-assembly according to claim 26, wherein
2 said mounting sub-assembly comprises a first hollow member being an elongated tube
3 having an internal diameter, a second member being an elongated component having an
4 external diameter less than said internal diameter of said first hollow member wherein
5 said second member is inserted within said first hollow member thereby creating a space
6 between said first hollow member and said second member, a means for restricting
7 rotation of said second member within said first hollow member contained within said
8 space, a means for securing said second member to said pair of notched receiving
9 members such that as said second member rotates within said first hollow member said
10 notched receiving members rotate, and a means for securing said first hollow member at a
11 position below the conveyor belt such that the scraper blade is in contact with the
12 conveyor belt.
- 1 32. (Previously Presented) The blade support sub-assembly according to claim 31, wherein
2 said second member has a length longer than said first hollow member.
- 1 33. (Previously Presented) The blade support sub-assembly according to claim 31, wherein
2 said first hollow member and said second member have a generally square cross-sectional
3 shape.
- 1 34. (Previously Presented) The blade support sub-assembly according to claim 33, wherein
2 said second member is offset approximately 45 degrees from said first hollow member
3 when said second member is inserted within said first hollow member.
- 1 35. (Previously Presented) The blade support sub-assembly according to claim 34, wherein

1 said second member has rounded corners.

1 36. (Previously Presented) The blade support sub-assembly according to claim 31, wherein
2 said means for restricting rotation of said second member within said first hollow
3 member contained within said space is one or more torsion elements in said space.

1 37. (Previously Presented) The blade support sub-assembly according to claim 36, wherein
2 said one or more torsion elements are elongated bars of rubber having a length generally
3 equal to a length of said first hollow member.

1 38. (Previously Presented) The blade support sub-assembly according to claim 37, wherein
2 said torsion elements have a generally circular cross-sectional shape.

1 39. (Previously Presented) The blade support sub-assembly according to claim 32, wherein
2 said means for securing said second member to said pair of notched receiving members
3 comprises a first end of said second member protruding through a hole in one of said pair
4 of notched receiving members and a second end of said second member protruding
5 through a hole in a second of said pair of notched receiving members.

1 40. (Previously Presented) The blade support sub-assembly according to claim 1, wherein
2 said face plate is positioned between said notched receiving members such that said face
3 plate is at a height aligned with a height of said rear vertical stabilizer of each said
4 notched receiving member.

1 41. (Previously Presented) The blade support sub-assembly according to claim 1, further
2 comprising:
3 a shield attached to the scraper blade, wherein said shield extends from the scraper

1 blade and over the blade support sub-assembly.

1 42. (Previously Presented) The blade support sub-assembly according to claim 1, wherein
2 said mounting sub-assembly comprises a first hollow member being an elongated tube
3 having an internal diameter, a second member being an elongated component having an
4 external diameter less than said internal diameter of said first hollow member wherein
5 said second member is inserted within said first hollow member thereby creating a space
6 between said first hollow member and said second member, a means for restricting
7 rotation of said second member within said first hollow member contained within said
8 space, a means for securing said second member to said pair of notched receiving
9 members such that as said second member rotates within said first hollow member said
10 notched receiving members rotate, and a means for securing said first hollow member at a
11 position below the conveyor belt such that the scraper blade is in contact with the
12 conveyor belt.

1 43. (Previously Presented) The blade support sub-assembly according to claim 42, wherein
2 said second member has a length longer than said first hollow member.

1 44. (Previously Presented) The blade support sub-assembly according to claim 42, wherein
2 said first hollow member and said second member have a generally square cross-sectional
3 shape.

1 45. (Previously Presented) The blade support sub-assembly according to claim 44, wherein
2 said second member is offset approximately 45 degrees from said first hollow member
3 when said second member is inserted within said first hollow member.

1 46. (Previously Presented) The blade support sub-assembly according to claim 45, wherein

1 said second member has rounded corners.

1 47. (Previously Presented) The blade support sub-assembly according to claim 42, wherein
2 said means for restricting rotation of said second member within said first hollow
3 member contained within said space is one or more torsion elements in said space.

1 48. (Previously Presented) The blade support sub-assembly according to claim 47, wherein
2 said one or more torsion elements are elongated bars of rubber having a length generally
3 equal to a length of said first hollow member.

1 49. (Previously Presented) The blade support sub-assembly according to claim 48, wherein
2 said torsion elements have a generally circular cross-sectional shape.

1 50. (Previously Presented) The blade support sub-assembly according to claim 43, wherein
2 said means for securing said second member to said pair of notched receiving members
3 comprises a first end of said second member protruding through a hole in one of said pair
4 of notched receiving members and a second end of said second member protruding
5 through a hole in a second of said pair of notched receiving members.